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HARD RED SPRING WHEAT



PROCUREMENT SECTION
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QUALITY REPORT

Physical, Chemical, Milling, and Baking Characteristics

1977 & 1978 CROPS

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION, AGRICULTURAL RESEARCH
NORTH CENTRAL REGION

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION, AGRICULTURAL RESEARCH
in cooperation with
STATE AGRICULTURAL EXPERIMENT STATIONS

REPORT OF PHYSICAL, CHEMICAL, MILLING, AND BAKING EXPERIMENTS

WITH HARD RED SPRING WHEAT

1977 & 1978 CROPS^{1/}

by

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^{1/} This is a progress report of cooperative investigations containing some results that have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for use of cooperators and their official staffs and to those persons having direct and special interest in the development of agricultural research programs.

This report was compiled by the Science and Education Administration, Agricultural Research, U.S. Department of Agriculture. Special acknowledgment is made to the North Dakota State University for their facilities and services provided in support of these studies. The report is not intended for publication and should not be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

FOREWORD

This report is out of sequence. At the time when these data were obtained, the Wheat Quality Laboratory was scheduled for closing (Oct. 1977), so the operating budget was very low, and some of the staff had already left for other positions. Although the data included here were sent to the breeders who submitted samples, no formal reports were prepared at that time. To prevent a skip in the crop reports issued from this Laboratory, we have compiled the abbreviated 1977-78 report presented here. Because of lower priority, this was done after completion of the 1979 crop report.

V.L.Y.
Spring & Durum Wheat Quality
Laboratory

August 1980

1977 COOPERATING AGENCIES, STATIONS, AND PERSONNEL

The cooperating agencies and stations conducting the varietal plot and nursery experiments from which the 1977 spring wheat samples were received are listed below:

Idaho Agricultural Experiment Station:

Aberdeen

Minnesota Agricultural Experiment Station:

Crookston, Morris, and St. Paul

Montana Agricultural Experiment Station:

Bozeman, Havre, and Sidney

North Dakota Agricultural Experiment Station:

Dickinson, Fargo, Langdon, Minot, and Williston

South Dakota Agricultural Experiment Station:

Brookings and Selby

Wisconsin Agricultural Experiment Station:

Madison

A complete list of all cooperating agencies, stations, and personnel for the year will be found in the report by Heiner, Elsayed, Quick, and Johnson, Wheat Varieties Grown in Cooperative Plot and Nursery Experiments in the Spring Wheat Region in 1977.

1978 COOPERATING AGENCIES, STATIONS, AND PERSONNEL

The cooperative agencies and stations conducting the varietal plot and nursery experiments from which the 1978 spring wheat samples were received are listed below:

California Agricultural Experiment Station:

El Centro

Idaho Agricultural Experiment Station:

Aberdeen

Minnesota Agricultural Experiment Station:

Crookston, Morris, and St. Paul

Montana Agricultural Experiment Station:

Sidney

North Dakota Agricultural Experiment Station:

Carrington, Dickinson, Fargo, Langdon, Minot,
and Williston

South Dakota Agricultural Experiment Station:

Brookings, Redfield, and Selby

Washington Agricultural Experiment Station:

Pullman

Wisconsin Agricultural Experiment Station:

Madison

Wyoming Agricultural Experiment Station:

Sheridan and Torrington

A complete list of all cooperating agencies, stations, and personnel for the year will be found in the report by Busch, Elsayed, and Quick. Wheat Varieties Grown in Cooperative Plot and Nursery Experiments in the Spring Wheat Region in 1978.

INTRODUCTION

Samples of standard varieties and many of the new strains of hard red spring wheat grown in cooperative experiments in the spring wheat region of the United States^{2/} have been milled each year by the USDA. The flours were assayed chemically and physically and baked into bread to determine the quality characteristics. The purpose of this report is to make available to the cooperators a continuation of the quality data through an abbreviated report for the 1977-1978 crops (See foreword statement). The same general format and techniques were used in evaluating the wheats as those discussed in the 1974-76 quality report.

The overall average baking evaluation for the 1977 crop Uniform Regional Nursery Blends was satisfactory to questionable and the 1978 crop was rated questionable to satisfactory.

The oxidation requirements for both crop years were the same, but with some variation between areas.

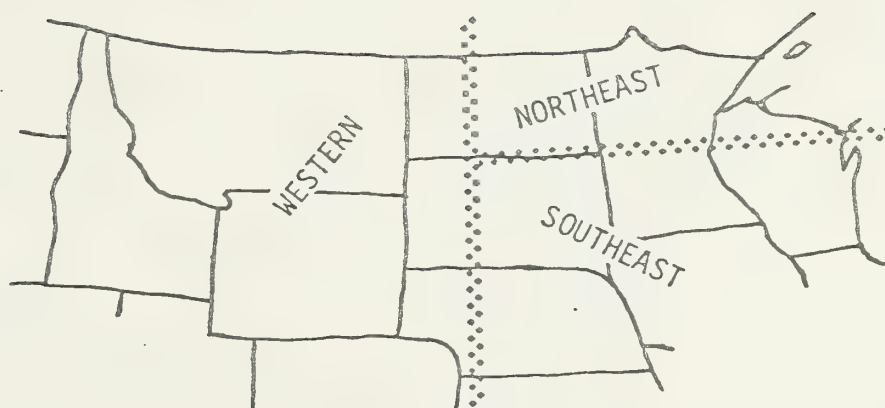
^{2/} Heiner, Busch, Elsayed, Quick, and Johnson. Wheat Varieties Grown in Cooperative Plot and Nursery Experiments in the Spring Wheat Region in 1977-1978, Agricultural Research Service, U.S. Department of Agriculture and State Agricultural Experiment Stations, St. Paul, Minn.

SOURCE OF THE 1977 CROP SAMPLES

Tests were performed on 698 samples received from Field Plots, Uniform Regional Nurseries, and Sawfly Yield Nurseries of the 1977 crop. These samples originated in six states; Idaho, Minnesota, Montana, North Dakota, South Dakota, and Wisconsin. Fifteen stations from these states were represented, namely, Aberdeen in Idaho; Crookston, Morris, and St. Paul in Minnesota; Bozeman, Havre, and Sidney in Montana; Dickinson, Fargo, Langdon, Minot, and Williston in North Dakota; Brookings and Selby in South Dakota; and Madison in Wisconsin.

On page 8 are listed the spring wheats that were included in the 1977 Uniform Regional Nursery trials. The variety or cross, the station that developed the variety, the state selection number, and the C.I. number are given.

Individual wheat samples originating from the 3 spring wheat areas as outlined in the illustration were blended according to area. The samples were blended in equal portions and milled as area blends.

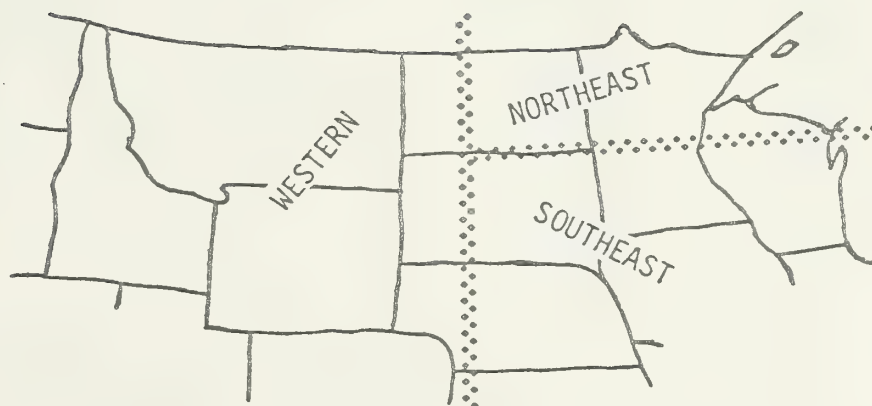


SOURCE OF THE 1978 CROP SAMPLES

Tests were performed on 700 samples received from Field Plots, Uniform Regional Nurseries, International Spring Wheat Nursery, and Sawfly Yield Nurseries of the 1978 crop. These samples originated in nine states: California, Idaho, Minnesota, Montana, North Dakota, South Dakota, Washington, Wisconsin, and Wyoming. Nineteen stations from these states were represented, namely El Centro in California; Aberdeen in Idaho; Crookston, Morris, and St. Paul in Minnesota; Sidney in Montana; Carrington, Dickinson, Fargo, Langdon, Minot, and Williston in North Dakota; Brookings, Redfield, and Selby in South Dakota; Madison in Wisconsin; Pullman in Washington; and Sheridan and Torrington in Wyoming.

On page 9 are listed the spring wheats that were included in the 1978 Uniform Regional Nursery trials. The variety or cross, the station that developed the variety, the state selection number, and the C.I. number are given.

The spring wheat area was divided into 3 areas as outlined in the illustration. The wheat samples from those stations falling within the arbitrary boundaries shown are blended in equal portions and milled on the Buhler mill as area blends.



ENTRIES INCLUDED IN THE 1977 UNIFORM REGIONAL
HARD RED SPRING WHEAT NURSERY

Entry No.	Cross or Variety	C.I. or Sel. No.	Year Entered	Source
1	MARQUIS	3651	1929	Canada
2	CHRIS	13751	1960	USDA-MN
3	WALDRON	13958	1964	ND
4	COTEAU	17749	1976	ND
5	OLAF/ND496	ND547	1977	ND
6	OLAF/ND496	ND549	1977	ND
7	ND507/ND496	ND550	1977	ND
8	ND507/ND496-84	ND551	1977	ND
9	ND496's/4/ND396/3/JTN/AGENT/SUWON92	ND553	1977	ND
10	WALDRON//BAGE/CHRIS	ND554	1977	ND
11	OLAF/ND510-2	SD2273	1976	SD
12	EUREKA	SD2185	1977	SD
13	OLAF/NEEPAWA	SD2355	1977	SD
14	WALDRON//TZPP/AA	SD2358	1977	SD
15	ND499/3/JTN/RL4205/WI261	ND543**	1976	ND
16	OLAF/4/JTN/ND335//JTN/WANKEN/3/ CHRIS/WI261	ND555**	1977	ND
17	RR68/4/SI/3/NRN10/BVR14/5*CNT	MT749**	1976	USDA-MT
18	RR68/3/NRN10/BVR14//6*CNT	MT7416**	1976	USDA-MT
19	ANGUS	17744**	1972	USDA-MN
20	ERA/KITT	MN7086**	1975	USDA-MN
21	WALDRON/ERA	MN70170**	1976	USDA-MN
22	ERA/CHRIS MUTANT	MN70202**	1976	USDA-MN
23	FCH/C.I. 13990	MN7125**	1976	USDA-MN
24	ERA's'/TOB66//FCH/CNO/3/POLK	MN7155**	1976	USDA-MN
25	WS1809//II-60-105/IRN646'68'	MN70181**	1977	USDA-MN
26	FCH/NOR//WEB/II-62-16/3/ERA	MN70197**	1977	USDA-MN
27	ERA*2/CHRIS MUTANT	MN7222**	1977	USDA-MN
28	BORAH/3/II-60-101//TZPP/SON64	ID0153**	1977	USDA-MN
29	ERA	13986**	1972	USDA-MN
30		75S5511**	1977	Northrup King
31		75S5513**	1977	Northrup King
32		MP548**	1977	World Seeds

**Semidwarf

ENTRIES INCLUDED IN THE 1978 UNIFORM REGIONAL
HARD RED SPRING WHEAT NURSERY

Entry No.	Cross or Variety	C.I. or Sel. No.	Year Entered	Source
1	Marquis	3651	1929	Canada
2	Chris	13751	1960	USDA-MN
3	Waldron	13958	1964	ND
4	ND507/ND496	ND 550	1977	ND
5	ND 496 Sib/4/ND396/3/Pb/ Agent//Suwon 92	ND 557	1978	ND
6	Olaf/Butte	ND 560	1978	ND
7	Olaf//ND499/ND516	ND 561	1978	ND
8	ND507//Wisc. 271/Polk	ND 563	1978	ND
9	Olaf/ND510-2	SD 2273	1976	SD
10	Olaf/NEEPAWA	SD 2355	1977	SD
11	ND499/3/JTN/RL4205/WI261	ND 543**	1976	ND
12	RR68/4/SI/3/NRN10/BVR14/5*CNT	MT 749**	1976	USDA-MT
13	RR68/3/NRN10/BVR14//6*CNT	MT 7416**	1976	USDA-MT
14	Era	13986**	1972	USDA-MN
15	Waldron/Era	MN 70170**	1976	USDA-MN
16	FCH/C.I. 13990	MN 7125**	1976	USDA-MN
17	Era*2/Chris Mutant	MN 7222	1977	USDA-MN
18	WS1809//II-60-105/IRN646'68'	MN 70181**	1977	USDA-MN
19	Era/Chris Mutant	MN 70202**	1976	USDA-MN
20	Era/II-61-6//Waldron*2/Era	MN 7336**	1978	USDA-MN
21	Era/FBW406	MN 7378**	1978	USDA-MN
22		NHS183**-74	1978	North American Pl. Br.
23		NHS1001**-75	1978	North American Pl. Br.
24		75S5511**	1977	Northrup King
25		WSMP 122**	1978	World Seeds
26	K 69001696/Era	WA 6389** ¹	1978	WA

**Semidwarf

¹Previously K 7400033

METHODS

The terminology and methods used were the same as those described in the 1974-76 Crop Hard Red Spring Wheat Quality Report.

DISCUSSION

The basic techniques and criteria used in the milling and baking evaluation of the samples are the same as those discussed in the 1974-76 Quality Report.

UNIFORM REGIONAL NURSERY SAMPLES - 1977 CROP

A total of 461 Uniform Regional Nursery samples were received. The samples represented 14 stations from 6 states. Wheat blends were made of the samples by area. Thirty-two samples were received from each of the 14 stations. Twenty-five selections were included for quality evaluation in the Uniform Regional Nursery samples. The remainder of the samples were these named varieties: Angus, Chris, Coteau, Era, Eureka, Marquis, and Waldron. Wheat blends were milled and baked by the macro method. Chris and Waldron were used as the standards. The average evaluation for the northeastern area was some promise; southeastern area, little promise; and the western area, some promise. Uniform Nursery samples not included in the blends were milled and baked using the micro method. The 1977 standard Waldron blend was used as the milling and baking standard. Data are presented in Tables 1 through 4.

FIELD PLOT NURSERY SAMPLES - 1977 CROP

Seventy samples were received from two states and three stations. The data for the individual samples are given in Tables 5 through 7. Samples were milled and baked using the macro method.

NORTH DAKOTA SAMPLES

Sixty-one samples were received from the Dickinson and Williston, North Dakota stations. Data are given in Tables 5 and 6. Chris and Waldron were used as standards.

WISCONSIN SAMPLES

Nine samples were received from the Madison, Wisconsin station. Data are given in Table 7. Butte was used as the standard.

INTERNATIONAL SAWFLY NURSERY AND
SECONDARY SAWFLY NURSERY SAMPLES - 1977 CROP

One hundred sixty-eight samples were received from two stations in Montana, (Havre and Sidney), and three stations in North Dakota (Fargo, Minot, and Williston). Fortuna and Tioga were used as standards. Samples were milled and baked using the micro method. Data for the International Sawfly Nursery are given in Tables 8 through 12, and data for the Secondary Sawfly Nursery are given in Tables 13 through 15.

UNIFORM REGIONAL NURSERY AND
WESTERN REGIONAL NURSERY SAMPLES - 1978 CROP

A total of 503 samples were received; 463 from the Uniform Regional Nursery and 40 from the Western Regional Spring Wheat Nursery. The samples represented 18 stations from 8 states. Wheat blends were made of the samples by area. Twenty-six samples were received from 16 stations. Twenty-two selections were included for quality evaluation in the Uniform Regional Nursery samples. The remainder of the samples were these named varieties: Chris, Era, Marquis, and Waldron. Blends were milled and baked using the macro method. Chris and Waldron were used as standards. The average general evaluation for the northeastern area was some promise, southeastern area little promise, and western area little promise. Uniform Nursery samples from Pullman, Washington and Sheridan, Wyoming were not included in the blends and were milled and baked using the micro method. Chris and Waldron were used as standards. The Western Regional Nursery from Aberdeen, Idaho was also milled and baked using the micro method. The 1978 milling and baking standard and Borah were used as standards. Data are presented in Tables 16 through 20.

FIELD PLOT NURSERY SAMPLES - 1978 CROP

Eighty samples were received from two states and three stations. Samples were milled and baked using the macro method.

CALIFORNIA SAMPLES

Fifteen samples were received from El Centro, California station. The 1978 milling and baking standard was used as the standard. Data are given in Table 21.

NORTH DAKOTA SAMPLES

Sixty-five samples were received from the Dickinson and Williston, North Dakota stations. Chris and Waldron were used as standards. Data are given in Tables 22 and 23.

INTERNATIONAL NURSERY SAMPLES - 1978 CROP

Fourty-nine samples were received from the Fargo, North Dakota station. Samples were milled and baked using the micro method. Waldron was used for the standard. Data are given in Table 24.

INTERNATIONAL SAWFLY NURSERY AND
SECONDARY SAWFLY NURSERY SAMPLES - 1978 CROP

One hundred eight samples were received from Sidney, Montana, and Fargo, Minot, and Williston, North Dakota. Fortuna and Thatcher were used for standards on the International samples and Fortuna was used for the Secondary samples from Williston. Samples were milled and baked using the micro procedure. Data for the International Sawfly Nursery are given in Tables 25 through 26 and data for the Secondary Sawfly Nursery from Williston are given in Table 27.

TABLE 2
QUALITY DATA OF UNIFORM NURSERY SAMPLES

T.M. VARIETY OR SEED. NO.	1000 G.	KERNEL SIZE	HHT. MIN.	WHT. PRO.	KERN. CHAR.	FLR. EXT.	FLR. MIN. 3 EXT.	FLR. PRO.	MLG. CHAR.	MLG. 3Z.	MIX. EVAL.	MIX. 3Z.	BAKE ADD.	MIX. TIME	BLEND COLOR	CRUMB GRAIN	CRUMB 3Z.	LCAF BAKE VOL. EVAL.	GEN. 3Z.	MINOR DEFICIENCY		MAJOR DEFICIENCY
																				CC.	3Z.	
SOUTHEASTERN REGIONAL BLEND																						
40-2	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-3	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-4	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-5	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-6	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-7	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-8	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-9	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-10	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-11	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-12	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-13	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-14	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-15	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-16	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-17	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-18	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-19	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-20	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-21	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-22	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-23	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-24	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-25	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-26	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-27	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-28	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-29	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-30	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-31	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-32	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-33	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-34	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-35	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-36	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-37	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-38	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-39	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-40	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-41	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-42	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-43	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-44	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-45	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-46	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-47	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-48	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-49	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-50	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-51	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-52	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-53	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-54	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-55	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-56	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-57	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-58	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-59	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-60	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-61	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-62	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-63	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-64	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-65	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-66	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.0	88.0	10	87.0	4	3	BA	PD
40-67	38	50	1.69	1.77	2	71.8	0.48	1.0	1	1.0	3.23	3	6.4	4.00	100.							

```

CLEAN, ORN - SUBTRACT 1 LB./OZ. FOR DCRAGE-FREE T.W.
//
// 14% MOISTURE BASIS.
//
// 1 = VERY SATISFACTORY, 3 = SATISFACTORY, 4 = QUESTIONABLE-SATISFACTORY, 5 = QUESTIONABLE, 6 = QUESTIONABLE-UNSATISFACTORY, 7 = UNSATISFACTORY-QUESTIONABLE, 8 = UNSATISFACTORY.
//
// 9 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT-NORMAL, 4 = SOFT, 5 = CRITTY, 6 = VERY SOFT, 7 = PLIABLE-ELASTIC, 8 = WEAK, 10 = VERY WEAK, 20 = SLIGHTLY DEAD, 30 = DEAD.
//
// 1 = BUCKY, 2 = VERY ELASTIC, 3 = ELASTIC, 4 = ELASTIC-PLIABLE, 5 = PLIABLE-CREAMY, 6 = PLIABLE, 7 = PLIABLE-CREAMY, 8 = CREAMY, 9 = CREAMY, 10 = DULL GRAY, XXX.1 = VERY GRAY.
//
// XXX.9 = BRIGHT WHITE, XXX.8 = WHITE, XXX.7 = SLIGHTLY CREAMY, XXX.6 = BRIGHT CREAMY, XXX.5 = CREAMY, XXX.4 = VERY CREAMY, XXX.3 = DULL GRAY, XXX.2 = DULL GRAY, XXX.1 = VERY GRAY.
//
// XXX.90 = SUGGESTED, XXX.80 = CLOSE, XXX.70 = OPEN, IRREGULAR, XXX.60 = OPEN, SLIGHTLY IRREGULAR, XXX.50 = OPEN, IRREGULAR, XXX.40 = OPEN, IRREGULAR, XXX.30 = SLIGHTLY OPEN, IRREGULAR,
//
// 1 = NO PROMISE, 2 = LITTLE PROMISE, 3 = SOME PROMISE, 4 = GOOD PROMISE,
//
// XXX.90 = SUGGESTED, XXX.80 = CLOSE, XXX.70 = OPEN, IRREGULAR, XXX.60 = OPEN, SLIGHTLY IRREGULAR, XXX.50 = OPEN, IRREGULAR, XXX.40 = OPEN, IRREGULAR, XXX.30 = SLIGHTLY OPEN, IRREGULAR,
//
// 1 = NO PROMISE, 2 = LITTLE PROMISE, 3 = SOME PROMISE, 4 = GOOD PROMISE.
//

```


TABLE 3

17 CLEAN - SUBTRACT 1 LB * 80. FOR DOCKAGE - FREE 1.4 -
UNSATISFACTORY. 2 = SATISFACTORY. 3 = SATISFACTORY-QUESTIONABLE. 4 = QUESTIONABLE-SATISFACTORY. 5 = QUESTIONABLE. 6 = UNSATISFACTORY-QUESTIONABLE. 7 = UNSATISFACTORY.
18 WEAR STATE - SATISFACTORY. 9 = UNSATISFACTORY.

1X MOISTURE BASIS.
2/ 1 = VERY SATISFACTORY, 2 = SATISFACTORY-QUESTIONABLE, 3 = SATISFACTORY, 4 = QUESTIONABLE-SATISFACTORY, 5 = QUESTIONABLE-UNSATISFACTORY, 6 = QUESTIONABLE-UNSATISFACTORY, 7 = QUESTIONABLE-UNSATISFACTORY, 8 = UNSATISFACTORY.

1 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT-NORMAL, 4 = SOFT, 5 = GRITTY, 6 = VERY SOFT.
(1 = VERY WEAK --- 11 = VERY STRONG)
REFER TO REFERENCE MIXIGRAMS FOR NUMERICAL CURVE PATTERN.

1 = BUCKY, 2 = VERY ELASTIC, 3 = ELASTIC, 4 = ELASTIC-PLIABLE, 5 = PLIABLE, 6 = PLIABLE-ELASTIC, 7 = PLIABLE-WEAK, 8 = WEAK, 9 = WEAK-PLIABLE, 10 = VERY WEAK, 20 = SLIGHTLY DEAD, 30 = DEAD.

[illegible]

9/ AAA.50 = SLIGHTLY THROUGHOUT; AAA.70 = SLIGHTLY OPEN; AAA.90 = SLIGHTLY
IRREGULAR; AAA.99 = NORMAL.
1 = NC PROMISE, 2 = LITTLE PROMISE, 3 = SOME PROMISE, 4 = GOOD PROMISE.

SPECIAL UNIFORM NURSERY SAMPLES NOT INCLUDED IN BLENDS

VARIETY OR PROF. NO.	T.W. #/BU.	1000 KWT.	KERNEL SIZE C. x x x	WHT. MIN.	WHT. PRO.	KERN. CH.	FLR. CH.	FLR. EXT.	MIN. Ø C.	FLR. PRO.	MLG. CH.	MLG. PRO.	NIX. ABS.	NIX. ABS.	BAKE 27	MIX. TIME	DOUGH SH.	CHUMB COLOR	CRUMB GRAIN	LOAF BAKE VOL.	GEN. EVAL.	MINOR DEFICIENCY		MAJOR DEFICIENCY
																						77	97	
WILLISTON-NORTH DAKOTA																								
60-8	34.4	59	40	1	1.66	15.4	2	68.0	0.51	15.2	1	2	65.0	5	65.0	4:00	3	100.0	89.10	194	2	4		
1977 STD	60-8	33.1	34	55	1.41	16.7	3	64.3	0.40	16.2	1	3	66.3	7	63.5	3:25	3	101.5	87.07	195	4	1	LG EX	
BUITE	62-0	37.3	4	75	1.43	16.8	3	59.6	0.44	16.0	1	8	63.5	7	63.5	5:25	3	101.0	86.10	196	4	1	LG BA	EX
LANGDON-NORTH DAKOTA																								
60-8	34.4	59	40	1	1.66	15.4	2	68.0	0.51	15.2	1	2	65.0	5	65.0	4:00	3	100.0	89.10	194	2	4		
1977 STD	60-8	37.9	55	45	1.51	14.3	3	64.2	0.40	15.7	1	3	62.3	3	62.3	3:25	3	101.0	89.99	190	6	1	WP EX	BA
BUITE	62-0	35.0	50	50	1.69	15.4	2	63.9	0.43	15.4	1	4	62.8	4	62.8	3:50	6	100.0	92.99	181	1		SM	BA
ELLAR	62-0	40.3	63	35	1.54	14.4	3	64.4	0.48	15.4	1	8	63.8	3	63.8	3:50	7	100.0	92.99	181	1		SM	BA
AND	62-0	40.3	60	40	1.62	14.5	4	60.2	0.48	14.5	1	8	63.8	3	63.8	3:50	7	100.0	92.99	181	1		SM	BA
552	62-0	40.5	60	40	1.62	14.5	4	60.2	0.48	14.5	1	8	63.8	3	63.8	3:50	7	100.0	92.99	181	1		SM	BA
OLAF																								
62-0	41.0	61	38	1	1.66	13.1	8	69.8	0.43	12.9	1	8	59.3	4	59.3	3:25	6	103.6	90.99	170	8	1	LV	EX
OLADOK	62-0	38.8	64	31	1.57	12.2	8	57.8	0.43	12.9	1	4	59.3	4	59.3	3:25	6	103.6	90.99	170	8	1	LV	EX
PROF. 75	62-0	30.7	5	89	1.63	15.4	8	61.8	0.47	11.9	1	13	64.5	10	64.5	4:50	6	100.0	91.99	174	8	1	KW LV	EX
PROTOR	63-5	37.5	34	65	1.65	13.2	8	61.5	0.46	13.1	1	8	61.3	10	61.3	8:50	4	103.8	90.99	187	8	1	LG	EX
61-5	37.6	36	43	1	1.64	13.0	8	59.7	0.52	13.0	4	8	64.7	4	64.7	4:50	5	104.8	90.99	187	8	1	LG	EX
MARE																								
62-0	32.3	29	71	0	1.58	11.5	8	62.4	0.56	11.4	1	8	60.0	4	60.0	3:25	6	102.0	89.99	175	8	1	LG	EX
25-NP258	62-0	31.2	6	88	1.64	11.4	8	62.4	0.49	11.4	1	8	59.7	4	59.7	5:00	6	103.0	89.99	171	8	1	KW	EX
CLEAN DRY - SUBTRACT 1 LB./BU. FOR DOCKAGE-FREE T.W.																								
1/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
2/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
3/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
4/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
5/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
6/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
7/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
8/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
9/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
10/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
11/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
12/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
13/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
14/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
15/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
16/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
17/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
18/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
19/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
20/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
21/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
22/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
23/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
24/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
25/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
26/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
27/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
28/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
29/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
30/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
31/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
32/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
33/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
34/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
35/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
36/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
37/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
38/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
39/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
40/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
41/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	
42/	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	14							

VARIETY OR SEL. NO.	T.W. LB.	1000 KWT.	SEED COUNT	1000 KWT.	SEED COUNT	HT. IN.	HT. IN.	WHT. G.	WHT. G.	CHL. %	CHL. %	FLR. EXT.	FLR. EXT.	MIN. %	MIN. %	PRD. %	PRD. %	MLG. G.	MLG. G.	MIX. %	MIX. %	ASS. %	ASS. %	PAT. %	PAT. %	AGE DAYS	TIME MIN.	DECH. %	CHUM. %	CHUM. %	GRAIN LB.	LUKE VOL.	LUKE HAKE VOL.	GEN. %	MAJOR DEFICIENCY
DICKINSON, NORTH DAKOTA																																			
BUTTE	61.0	29.2	22	75	3	1.42	1.42	15.0	15.0	5	5	65.5	65.5	0.35	0.35	14.1	14.1	1	1	2	2	65.3	65.3	4	4	64.5	64.5	3	3	100.5	88.09	935	3	3	MP
CHRIS	60.3	26.3	27	75	4	1.43	1.43	15.0	15.0	3	3	65.4	65.4	0.36	0.36	14.3	14.3	1	1	3	3	64.2	64.2	4	4	64.5	64.5	3	3	101.0	88.09	975	4	4	MP
ELLAR	61.0	29.4	22	75	2	1.50	1.50	15.2	15.2	4	4	68.7	68.7	0.37	0.37	14.1	14.1	1	1	2	2	67.3	67.3	5	5	67.2	67.2	3	3	101.0	85.05	925	3	3	MP
ERA	60.8	28.4	18	76	0	1.43	1.43	15.0	15.0	5	5	68.9	68.9	0.38	0.38	13.2	13.2	1	1	2	2	64.9	64.9	5	5	64.6	64.6	3	3	101.7	86.99	955	3	3	MP
KITT	59.0	31.1	32	66	2	1.50	1.50	15.1	15.1	5	5	69.7	69.7	0.41	0.41	13.3	13.3	1	1	3	3	64.2	64.2	4	4	64.1	64.1	3	3	100.5	87.99	910	3	3	MP
LEW	61.8	35.0	29	59	2	1.41	1.41	15.2	15.2	4	4	71.8	71.8	0.39	0.39	14.4	14.4	1	1	3	3	64.4	64.4	5	5	64.3	64.3	3	3	100.5	86.10	1010	3	3	MP
OLAF	60.3	33.6	30	42	2	1.40	1.40	15.5	15.5	2	2	66.7	66.7	0.35	0.35	13.4	13.4	1	1	2	2	65.3	65.3	5	5	65.4	65.4	3	3	101.0	83.05	955	3	3	MP
PRODAX	59.0	32.5	38	59	3	1.49	1.49	15.9	15.9	5	5	67.7	67.7	0.42	0.42	13.7	13.7	1	1	3	3	64.4	64.4	5	5	64.1	64.1	3	3	101.6	90.99	870	3	3	MP
PROFIT 75	60.3	29.7	12	83	5	1.42	1.42	15.6	15.6	5	5	70.3	70.3	0.38	0.38	13.9	13.9	1	1	2	2	63.2	63.2	5	5	62.5	62.5	3	3	98.2	88.99	905	3	3	MP
PROTOR	61.2	35.8	24	74	2	1.44	1.44	15.5	15.5	2	2	71.1	71.1	0.38	0.38	14.7	14.7	1	1	3	3	65.7	65.7	3	3	65.5	65.5	3	3	100.0	87.10	900	3	3	MP
SALMON	59.3	34.4	44	54	2	1.46	1.46	15.4	15.4	4	4	68.0	68.0	0.36	0.36	14.5	14.5	1	1	3	3	64.6	64.6	4	4	64.5	64.5	3	3	101.0	89.09	1030	3	3	MP
WAKED	60.9	29.5	25	71	4	1.39	1.39	15.9	15.9	5	5	70.5	70.5	0.39	0.39	13.1	13.1	1	1	3	3	62.5	62.5	3	3	62.4	62.4	3	3	100.4	89.99	930	3	3	MP
11-64-27	61.7	33.9	14	84	2	1.67	1.67	15.1	15.1	5	5	69.8	69.8	0.43	0.43	14.2	14.2	1	1	3	3	65.7	65.7	5	5	65.6	65.6	3	3	100.5	88.99	980	3	3	MP
N0243	60.7	33.6	16	92	2	1.49	1.49	15.2	15.2	4	4	71.5	71.5	0.41	0.41	14.6	14.6	1	1	3	3	66.6	66.6	5	5	66.5	66.5	3	3	100.7	86.10	975	3	3	MP
N0547	60.6	30.2	24	74	2	1.35	1.35	15.4	15.4	5	5	67.3	67.3	0.37	0.37	14.9	14.9	1	1	2	2	67.3	67.3	4	4	67.1	67.1	3	3	101.0	86.99	985	3	3	MP
N0550	61.9	32.4	36	62	2	1.41	1.41	15.0	15.0	4	4	68.2	68.2	0.40	0.40	14.1	14.1	1	1	3	3	64.2	64.2	5	5	64.1	64.1	3	3	101.0	91.99	950	3	3	MP
N0351	60.3	32.3	45	53	4	1.45	1.45	15.4	15.4	3	3	68.6	68.6	0.46	0.46	14.3	14.3	1	1	3	3	67.3	67.3	5	5	67.6	67.6	3	3	92.3	86.99	900	3	3	MP
N0352	60.3	32.6	31	67	2	1.42	1.42	15.1	15.1	4	4	68.4	68.4	0.49	0.49	14.5	14.5	1	1	3	3	68.8	68.8	0	0	68.9	68.9	3	3	92.5	90.99	900	3	3	MP
N0553	60.0	30.2	26	72	2	1.52	1.52	15.1	15.1	2	2	68.5	68.5	0.41	0.41	15.7	15.7	1	1	3	3	67.0	67.0	6	6	66.9	66.9	3	3	92.5	89.99	955	3	3	MP
N0555	60.8	34.1	48	50	2	1.46	1.46	15.5	15.5	3	3	69.3	69.3	0.37	0.37	14.3	14.3	1	1	3	3	66.3	66.3	4	4	66.2	66.2	3	3	101.0	85.05	975	3	3	MP
520185	61.0	34.7	53	46	1	1.43	1.43	15.2	15.2	4	4	70.2	70.2	0.47	0.47	14.5	14.5	1	1	2	2	65.7	65.7	6	6	65.5	65.5	3	3	101.0	82.05	985	3	3	MP
57003	60.6	35.6	49	49	2	1.39	1.39	15.1	15.1	4	4	70.9	70.9	0.45	0.45	14.5	14.5	1	1	1	1	65.3	65.3	5	5	65.1	65.1	3	3	100.7	89.99	1020	3	3	MP
5U-28-1	61.8	32.5	48	51	1	1.43	1.43	15.4	15.4	1	1	64.4	64.4	0.35	0.35	15.3	15.3	1	1	2	2	67.3	67.3	5	5	67.1	67.1	3	3	100.7	89.99	1020	3	3	MP
*525	61.3	28.4	48	85	7	1.53	1.53	15.7	15.7	8	8	71.0	71.0	0.37	0.37	13.1	13.1	1	1	2	2	63.2	63.2	0	0	63.1	63.1	3	3	100.0	88.99	930	3	3	MP

1/ CLEAN DRY - SUBTRACT 1 LB./BU. FOR DOCKAGE-FREE T.W.

2/ 1 = VERY SATISFACTORY, 2 = SATISFACTORY, 3 = SATISFACTORY-QUESTIONABLE, 4 = QUESTIONABLE-UNSATISFACTORY, 5 = QUESTIONABLE, 6 = QUESTIONABLE-UNSATISFACTORY, 7 = UNSATISFACTORY-UNSATISFACTORY, 8 = UNSATISFACTORY.

3/ 1 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT, 4 = SOFT, 5 = VERY SOFT, 6 = VERY SOFT, 7 = VERY SOFT, 8 = VERY SOFT, 9 = VERY SOFT.

4/ 1 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT, 4 = SOFT, 5 = VERY SOFT, 6 = VERY SOFT, 7 = VERY SOFT, 8 = VERY SOFT, 9 = VERY SOFT.

5/ 1 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT, 4 = SOFT, 5 = VERY SOFT, 6 = VERY SOFT, 7 = VERY SOFT, 8 = VERY SOFT, 9 = VERY SOFT.

6/ 1 = NORMAL, 2 = NORMAL-SOFT, 3 = SOFT, 4 = SOFT, 5 = VERY SOFT, 6 = VERY SOFT, 7 = VERY SOFT, 8 = VERY SOFT, 9 = VERY SOFT.

7/ XXX.9 = BRIGHT WHITE, XXX.8 = WHITE, XXX.7 = SLIGHTLY CREAMY, XXX.6 = BRIGHT CREAMY, XXX.5 = CREAMY, XXX.4 = VERY CREAMY, XXX.3 = DULL GRAY, XXX.2 = DULL GRAY, XXX.1 = VERY GRAY, XXX.0 = DEAD.

8/ XXX.90 = BRIGHT WHITE, XXX.80 = WHITE, XXX.70 = SLIGHTLY CREAMY, XXX.60 = BRIGHT CREAMY, XXX.50 = CREAMY, XXX.40 = VERY CREAMY, XXX.30 = DULL GRAY, XXX.20 = DULL GRAY, XXX.10 = VERY GRAY, XXX.00 = DEAD.

9/ 1 = NO PROMISE, 2 = LITTLE PROMISE, 3 = SOME PROMISE, 4 = ONLY IRREGULAR, XXX.99 = OPEN, XXX.98 = OPEN, XXX.97 = OPEN, XXX.96 = OPEN, XXX.95 = OPEN, XXX.94 = OPEN, XXX.93 = OPEN, XXX.92 = OPEN, XXX.91 = OPEN, XXX.90 = OPEN, XXX.89 = OPEN, XXX.88 = OPEN, XXX.87 = OPEN, XXX.86 = OPEN, XXX.85 = OPEN, XXX.84 = OPEN, XXX.83 = OPEN, XXX.82 = OPEN, XXX.81 = OPEN, XXX.80 = OPEN, XXX.79 = OPEN, XXX.78 = OPEN, XXX.77 = OPEN, XXX.76 = OPEN, XXX.75 = OPEN, XXX.74 = OPEN, XXX.73 = OPEN, XXX.72 = OPEN, XXX.71 = OPEN, XXX.70 = OPEN, XXX.69 = OPEN, XXX.68 = OPEN, XXX.67 = OPEN, XXX.66 = OPEN, XXX.65 = OPEN, XXX.64 = OPEN, XXX.63 = OPEN, XXX.62 = OPEN, XXX.61 = OPEN, XXX.60 = OPEN, XXX.59 = OPEN, XXX.58 = OPEN, XXX.57 = OPEN, XXX.56 = OPEN, XXX.55 = OPEN, XXX.54 = OPEN, XXX.53 = OPEN, XXX.52 = OPEN, XXX.51 = OPEN, XXX.50 = OPEN, XXX.49 = OPEN, XXX.48 = OPEN, XXX.47 = OPEN, XXX.46 = OPEN, XXX.45 = OPEN, XXX.44 = OPEN, XXX.43 = OPEN, XXX.42 = OPEN, XXX.41 = OPEN, XXX.40 = OPEN, XXX.39 = OPEN, XXX.38 = OPEN, XXX.37 = OPEN, XXX.36 = OPEN, XXX.35 = OPEN, XXX.34 = OPEN, XXX.33 = OPEN, XXX.32 = OPEN, XXX.31 = OPEN, XXX.30 = OPEN, XXX.29 = OPEN, XXX.28 = OPEN, XXX.27 = OPEN, XXX.26 = OPEN, XXX.25 = OPEN, XXX.24 = OPEN, XXX.23 = OPEN, XXX.22 = OPEN, XXX.21 = OPEN, XXX.20 = OPEN, XXX.19 = OPEN, XXX.18 = OPEN, XXX.17 = OPEN, XXX.16 = OPEN, XXX.15 = OPEN, XXX.14 = OPEN, XXX.13 = OPEN, XXX.12 = OPEN, XXX.11 = OPEN, XXX.10 = OPEN, XXX.09 = OPEN, XXX.08 = OPEN, XXX.07 = OPEN, XXX.06 = OPEN, XXX.05 = OPEN, XXX.04 = OPEN, XXX.03 = OPEN, XXX.02 = OPEN, XXX.01 = OPEN, XXX.00 = OPEN.

TABLE 6

QUALITY DATA OF FIELD PLOT NURSERY SAMPLES

1577 CRCP

VARIETY OR SEED NO.	1/	2/	3/	4/	5/	6/	7/	8/	9/	10/	11/	12/	13/	14/	15/	16/	17/	18/	19/	20/	21/	22/	23/	24/	25/	26/	27/	28/	29/	30/	31/	32/	33/	34/	35/	36/	37/	38/	39/	40/	41/	42/	43/	44/	45/	46/	47/	48/	49/	50/	51/	52/	53/	54/	55/	56/	57/	58/	59/	60/	61/	62/	63/	64/	65/	66/	67/	68/	69/	70/	71/	72/	73/	74/	75/	76/	77/	78/	79/	80/	81/	82/	83/	84/	85/	86/	87/	88/	89/	90/	91/	92/	93/	94/	95/	96/	97/	98/	99/	100/	101/	102/	103/	104/	105/	106/	107/	108/	109/	110/	111/	112/	113/	114/	115/	116/	117/	118/	119/	120/	121/	122/	123/	124/	125/	126/	127/	128/	129/	130/	131/	132/	133/	134/	135/	136/	137/	138/	139/	140/	141/	142/	143/	144/	145/	146/	147/	148/	149/	150/	151/	152/	153/	154/	155/	156/	157/	158/	159/	160/	161/	162/	163/	164/	165/	166/	167/	168/	169/	170/	171/	172/	173/	174/	175/	176/	177/	178/	179/	180/	181/	182/	183/	184/	185/	186/	187/	188/	189/	190/	191/	192/	193/	194/	195/	196/	197/	198/	199/	200/	201/	202/	203/	204/	205/	206/	207/	208/	209/	210/	211/	212/	213/	214/	215/	216/	217/	218/	219/	220/	221/	222/	223/	224/	225/	226/	227/	228/	229/	230/	231/	232/	233/	234/	235/	236/	237/	238/	239/	240/	241/	242/	243/	244/	245/	246/	247/	248/	249/	250/	251/	252/	253/	254/	255/	256/	257/	258/	259/	260/	261/	262/	263/	264/	265/	266/	267/	268/	269/	270/	271/	272/	273/	274/	275/	276/	277/	278/	279/	280/	281/	282/	283/	284/	285/	286/	287/	288/	289/	290/	291/	292/	293/	294/	295/	296/	297/	298/	299/	300/	301/	302/	303/	304/	305/	306/	307/	308/	309/	310/	311/	312/	313/	314/	315/	316/	317/	318/	319/	320/	321/	322/	323/	324/	325/	326/	327/	328/	329/	330/	331/	332/	333/	334/	335/	336/	337/	338/	339/	340/	341/	342/	343/	344/	345/	346/	347/	348/	349/	350/	351/	352/	353/	354/	355/	356/	357/	358/	359/	360/	361/	362/	363/	364/	365/	366/	367/	368/	369/	370/	371/	372/	373/	374/	375/	376/	377/	378/	379/	380/	381/	382/	383/	384/	385/	386/	387/	388/	389/	390/	391/	392/	393/	394/	395/	396/	397/	398/	399/	400/	401/	402/	403/	404/	405/	406/	407/	408/	409/	410/	411/	412/	413/	414/	415/	416/	417/	418/	419/	420/	421/	422/	423/	424/	425/	426/	427/	428/	429/	430/	431/	432/	433/	434/	435/	436/	437/	438/	439/	440/	441/	442/	443/	444/	445/	446/	447/	448/	449/	450/	451/	452/	453/	454/	455/	456/	457/	458/	459/	460/	461/	462/	463/	464/	465/	466/	467/	468/	469/	470/	471/	472/	473/	474/	475/	476/	477/	478/	479/	480/	481/	482/	483/	484/	485/	486/	487/	488/	489/	490/	491/	492/	493/	494/	495/	496/	497/	498/	499/	500/	501/	502/	503/	504/	505/	506/	507/	508/	509/	510/	511/	512/	513/	514/	515/	516/	517/	518/	519/	520/	521/	522/	523/	524/	525/	526/	527/	528/	529/	530/	531/	532/	533/	534/	535/	536/	537/	538/	539/	540/	541/	542/	543/	544/	545/	546/	547/	548/	549/	550/	551/	552/	553/	554/	555/	556/	557/	558/	559/	560/	561/	562/	563/	564/	565/	566/	567/	568/	569/	570/	571/	572/	573/	574/	575/	576/	577/	578/	579/	580/	581/	582/	583/	584/	585/	586/	587/	588/	589/	590/	591/	592/	593/	594/	595/	596/	597/	598/	599/	600/	601/	602/	603/	604/	605/	606/	607/	608/	609/	610/	611/	612/	613/	614/	615/	616/	617/	618/	619/	620/	621/	622/	623/	624/	625/	626/	627/	628/	629/	630/	631/	632/	633/	634/	635/	636/	637/	638/	639/	640/	641/	642/	643/	644/	645/	646/	647/	648/	649/	650/	651/	652/	653/	654/	655/	656/	657/	658/	659/	660/	661/	662/	663/	664/	665/	666/	667/	668/	669/	670/	671/	672/	673/	674/	675/	676/	677/	678/	679/	680/	681/	682/	683/	684/	685/	686/	687/	688/	689/	690/	691/	692/	693/	694/	695/	696/	697/	698/	699/	700/	701/	702/	703/	704/	705/	706/	707/	708/	709/	710/	711/	712/	713/	714/	715/	716/	717/	718/	719/	720/	721/	722/	723/	724/	725/	726/	727/	728/	729/	730/	731/	732/	733/	734/	735/	736/	737/	738/	739/	740/	741/	742/	743/	744/	745/	746/	747/	748/	749/	750/	751/	752/	753/	754/	755/	756/	757/	758/	759/	760/	761/	762/	763/	764/	765/	766/	767/	768/	769/	770/	771/	772/	773/	774/	775/	776/	777/	778/	779/	780/	781/	782/	783/	784/	785/	786/	787/	788/	789/	790/	791/	792/	793/	794/	795/	796/	797/	798/	799/	800/	801/	802/	803/	804/	805/	806/	807/	808/	809/	810/	811/	812/	813/	814/	815/	816/	817/	818/	819/	820/	821/	822/	823/	824/	825/	826/	827/	828/	829/	830/	831/	832/	833/	834/	835/	836/	837/	838/	839/	840/	841/	842/	843/	844/	845/	846/	847/	848/	849/	850/	851/	852/	853/	854/	855/	856/	857/	858/	859/	860/	861/	862/	863/	864/	865/	866/	867/	868/	869/	870/	871/	872/	873/	874/	875/	876/	877/	878/	879/	880/	881/	882/	883/	884/	885/	886/	887/	888/	889/	890/	891/	892/	893/	894/	895/	896/	897/	898/	899/	900/	901/	902/	903/	904/	905/	906/	907/	908/	909/	910/	911/	912/	913/	914/	915/	916/	917/	918/	919/	920/	921/	922/	923/	924/	925/	926/	927/	928/	929/	930/	931/	932/	933/	934/	935/	936/	937/	938/	939/	940/	941/	942/	943/	944/	945/	946/	947/	948/	949/	950/	951/	952/	953/	954/	955/	956/	957/	958/	959/	960/	961/	962/	963/	964/	965/	966/	967/	968/	969/	970/	971/	972/	973/	974/	975/	976/	977/	978/	979/	980/	981/	982/	983/	984/	985/	986/	987/	988/	989/	990/	991/	992/	993/	994/	995/	996/	997/	998/	999/	1000/	1001/	1002/	1003/	1004/	1005/	1006/	1007/	1008/	1009/	1010/	1011/	1012/	1013/	1014/	1015/	1016/	1017/	1018/	1019/	1020/	1021/	1022/	1023/	1024/	1025/	1026/	1027/	1028/	1029/	1030/	1031/	1032/	1033/	1034/	1035/	1036/	1037/	1038/	1039/	1040/	1041/	1042/	1043/	1044/	1045/	1046/	1047/	1048/	1049/	1050/	1051/	1052/	1053/	1054/	1055/	1056/	1057/	1058/	1059/	1060/	1061/	1062/	1063/	1064/	1065/	1066/	1067/	1068/	1069/	1070/	1071/	1072/	1073/	1074/	1075/	1076/	1077/	1078/	1079/	1080/	1081/	1082/	1083/	1084/	1085/	1086/	1087/	1088/	1089/	1090/	1091/	1092/	1093/	1094/	1095/	1096/	1097/	1098/	1099/	1100/	1101/	1102/	1103/	1104/	1105/	1106/	1107/	1108/	1109/	1110/	1111/	1112/	1113/	1114/	1115/	1116/	1117/	1118/	1119/	1120/	1121/	1122/	1123/	1124/	1125/	1126/	1127/	1128/	1129/	1130/	1131/	1132/	1133/	1134/	1135/	1136/	1137/	1138/	1139/	1140/	1141/	1142/	1143/	1144/	1145/	1146/	1147/	1148/	1149/	1150/	1151/	1152/	1153/	1154/	1155/	1156/	1157/	1158/	1159/	1160/	1161/	1162/	1163/	1164/	1165/	1166/	1167/	1168/	1169/	1170/	1171/	1172/	1173/	1174/	1175/	1176/	1177/	1178/	1179/	1180/	1181/	1182/	1183/	1184/	1185/	1186/	1187/	1188/	1189/	1190/	1191/	1192/	1193/	1194/	1195/	1196/	1197/	1198/	1199/	1200/	1201/	1202/	1203/	1204/	1205/	1206/	1207/	1208/	1209/	1210/	1211/	1212/	1213/	1214/	1215/	1216/	1217/	1218/	1219/	1220/	1221/	1222/	1223/	1224/	1225/	1226/	1227/	1228/	1229/	1230/	1231/	1232/	1233/	1234/	1235/	1236/	1237/	1238/	1239/	1240/	1241/	1242/	1243/	1244/	1245/	1246/	1247/	1248/	1249/	1250/	1251/	1252/	1253/	1254/	1255/	1256/	1257/	1258/	1259/	1260/	1261/	1262/	1263/	1264/	1265/	1266/	1267/	1268/	1269/	1270/	1271/	1272/	1273/	1274/	1275/	1276/	1277/	1278/	1279/	1280/	1281/	1282/	1283/	1284/	1285/	1286/	1287/	1288/	1289/	1290/	1291/	1292/	1293/	1294/	1295/	1296/	1297/	1298/	1299/	1300/	1301/	1302/	1303/	1304/	1305/	1306/	1307/	1308/	1309/	1310/	1311/	1312/	1313/	1314/	1315/	1316/	1317/	1318/	1319/	1320/	1321/	1322/	1323/	1324/	1325/	1326/	1327/	1328/	1329/	1330/	1331/	1332
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QUALITY DATA OF INTERNATIONAL SAWFLY NURSERY SAMPLES

VARIETY OR SEEDL. NO.	T.W. #/BU.	1000 KWT.	KERNEL SIZE LG MED SM	WHT. MIN.	WHT. PRO.	KERN. CHAS.	FLR. EAT.	FLR. CENX.	FLR. MIN.	FLR. PRC.	MLG. CHAS.	MLG. PER.	MIX. AUS.	MIX. FAL.	ADG. W.	BAKE TIME	VIX. MIN.	CRUMB GRAIN	LCAF VUL.	BAKE VUL.	GEN. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY
62-5	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-6	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-7	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-8	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-9	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-10	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-11	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-12	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-13	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-14	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-15	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-16	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-17	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-18	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-19	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-20	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-21	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-22	40.2	40	8	136	13.9	38	62.5	0.39	1.7	1.7	3	63.2	4	63.2	4	4.3	5	88.05	179	2	1	SM	
62-23	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-24	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-25	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-26	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-27	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-28	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-29	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-30	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-31	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-32	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-33	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-34	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-35	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-36	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-37	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-38	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-39	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-40	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-41	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-42	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-43	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-44	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-45	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-46	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-47	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-48	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-49	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-50	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-51	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-52	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-53	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-54	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-55	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-56	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-57	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-58	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-59	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-60	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-61	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-62	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-63	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-64	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-65	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-66	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-67	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-68	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-69	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-70	40.5	23.3	1	87	12	8	59.3	0.49	1.2	2	8	58.7	5	58.7	5	4.2	5	91.59	175	8	1	TM	DO
62-71	40.5	23.3	1	87	12	8	59.3																

TABLE 10
QUALITY DATA OF INTERNATIONAL SAWFLY NURSERY SAMPLES

1977 CRCP

[illegible]

TABLE 11

QUALITY DATA OF INTERNATIONAL SAFELY NURSERY SAMPLES

1977 CRCP

VARIETY OR SEL. NO.	T.W. #/BU.	1000 KBT.	1000 RED SN	MT. MIN.	MT. MAX.	HT. PRO.	KERN. CHAM.	FLR. EXT.	FLR. MIN.	FLR. MAX.	MLG. PER.	MIX. ABS.	MIX. PAT.	UAKS. ABS.	NIX. TIME	DOUGH CHAR.	CRUMB VOL.	CRUMB GRAIN	LOAF VOL.	BAKE EVAL.	GEN. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY
MINOT-NORTH DAKOTA																							
CHRIS	60.0	29.1	7	90	3	1.55	15.2	4	67.3	0.43	16.0	1	3	67.3	5	3.75	101.0	89.09	193	2	4	KW SM	LG
LEW	61.0	31.8	19	87	4	1.58	15.0	5	67.3	0.49	15.6	1	3	67.3	5	3.75	101.0	90.99	205	2	4	LC SM	M65 BA
THATCHER	60.5	29.8	25	91	4	1.50	15.5	5	66.8	0.49	15.2	1	3	67.3	5	3.75	101.0	92.99	198	5	1	KW SM	LG
WALTON	60.5	31.7	24	75	1	1.56	15.1	2	67.7	0.43	15.9	1	4	64.2	6	5.00	102.8	89.10	198	2	3	M65 BA	LG
MT 773	60.5	34.0	8	90	2	1.48	15.2	3	68.2	0.46	15.4	1	4	64.2	6	5.00	102.8	89.10	206	7	3	M65 BA	MT DO
MT 774	60.5	38.3	22	77	1	1.46	15.0	3	67.4	0.46	15.4	1	4	64.2	6	5.00	102.8	89.10	214	8	1	MP MT	LG
MT 758	59.5	29.0	8	87	1	1.63	15.8	3	67.4	0.46	15.4	1	4	64.2	6	5.00	102.8	89.10	195	5	1	TM KW	M65 DA
MT 754	59.5	23.8	0	91	7	1.53	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	192	2	1	TM KW	MP M65
MT 757	59.0	23.5	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	197	3	1	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	200	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	204	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	207	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	209	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	210	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	211	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	212	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	213	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	214	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	215	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	216	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	217	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	218	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	219	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	220	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	221	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	222	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	223	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	224	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	225	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	226	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	227	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	228	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	229	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	230	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	231	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	232	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	233	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	234	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	235	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	236	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	237	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	238	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	239	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	240	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	241	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	242	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	243	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	244	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	245	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	246	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	247	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	248	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	249	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	250	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	251	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	252	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	253	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3	65.7	4	4.25	104.6	88.10	254	3	2	DO	SM
MT 759	59.5	23.8	0	88	12	1.54	15.2	3	69.6	0.43	15.5	1	3										

VARIETY OR SEL. NO.	T ₁₀₀ #/bu.	1000 G.	KERNEL SIZE L ₁₀₀₀ x W ₁₀₀₀ x H ₁₀₀₀	WHT. PROG.	WHT. PROG.	KERN. CHG.	FLK. LAT.	FLK. LAT.	MIN. CONEX.	FLK. CONEX.	MLG. PROG.	MLG. CHG.	MLG. PROG.	MIX. PAT.	MIX. PAT.	BAKE AG.	MIX. TIME	DOUGH MIN.	CRUMB MIN.	CRUMB MIN.	GRUMB GRAIN	LOAF VOL.	BAKE EVAL.	GEN. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY	
WILLISTON-NORTH DAKOTA																											
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6	1	66-6	3	3:00	3	102-6	98-0	100	2	4	KW	LG	SM		
65-5	34-1	29	70	1	1.44	16.5	4	66-2	0.38	16-3	1	16-6</															

[illegible]

QUALITY DATA OF SECONDARY SAFELY NURSERY SAMPLES

[illegible]

[illegible]

L/ CLEAN DRY - SUBTRACT 1 LB./HU. FOR DUCKAGE-FREE T.M.

1 = BUCKY, 2 = VERY ELASTIC, 3 = ELASTIC, 4 = ELASTIC-PLIABLE, 5 = PLIABLE-ELASTIC, 6 = PLIABLE, 7 = PLIABLE-WEAK, 8 = WEAK-WEAK, 9 = WEAK, 10 = VERY WEAK, 20 = SLIGHTLY DEAD, 30 = DEAD

[illegible]

XXX.50 = SLIGHTLY IRREGULAR, OPEN, XXX.70 = SLIGHTLY OPEN, XXX.90 = SLIGHTLY IRREGULAR, XXX.99 = NORMAL.
1 = NO PROMISE, 2 = LITTLE PROMISE, 3 = SOME PROMISE, 4 = GOOD PROMISE.

THE UNIVERSITY OF CHICAGO
430 EAST 5TH STREET
CHICAGO, ILL. 60607
U.S.A.
TEL: 312/937-1234
FAX: 312/937-1234
WWW: WWW.CHICAGO.EDU

[illegible]

[illegible]

TABLE 21

QUALITY DATA ON FIELD PLOT NURSERY SAMPLES

1976 CROP

VARIETY GR SEL. NO.	T.W. #/BU.	1000 KWT.	KERNEL SIZE			WHT. PRO.	WHT. CHN.	WHT. KRN.	FLR. EXT.	FLR. MIN.	FLR. MAX.	MLG. PRO.	MLG. CHN.	MLG. KRN.	MIX. ABS.	MIX. PAT.	BAKE AUG.	NIX TIME	DOUGH CHAR.	CRUMB COLOR	CRUMB GRAIN	LOAF VOL.	LOAF BAKE	GEN. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY
			U	X	X													MIN.								
EL CENTRO, CALIFORNIA																										
1978-STD	62-2	37.0	74	26	0	173	15.2	2	71.6	0.32	14.3	1	15.2	1	64.4	3	65.1	2:50	4	100.0	91.99	920	2	4		
UC 203	64-5	48.8	74	24	2	143	15.5	1	73.6	0.33	11.5	1	62.9	1	62.9	3	63.9	3:25	5	102.5	89.99	725	7	1	SM	BA DO LV
UC 204	64-5	48.8	74	24	2	143	15.5	1	73.6	0.33	11.5	1	62.9	1	62.9	3	63.9	3:25	5	102.5	89.99	725	7	1	MP	LV
INIA 66 R	65-5	49.3	80	19	1	143	15.5	3	72.3	0.33	13.4	1	65.0	4	65.0	4	65.0	2:50	4	103.8	88.99	590	2	4	SM	BA DO
PROBRED	63-6	49.5	55	38	3	147	15.8	8	72.2	0.39	12.0	1	62.8	4	63.8	4	63.8	3:25	5	103.8	87.99	780	7	1	SM	BA DO
SHASTA	65-3	93.1	66	33	1	152	17.4	8	72.9	0.40	12.4	1	63.5	2	64.2	2	64.2	2:00	7	101.0	50.99	780	8	1	MP	LV
SECORA	64-1	50.5	70	20	2	150	16.7	5	62.9	0.36	10.5	1	61.8	6	62.9	3	62.9	3:00	6	103.9	90.70	920	3	4	SM	MP LV
UC 205	64-3	53.2	72	26	2	151	15.9	8	72.9	0.37	10.5	1	63.5	3	64.7	3	64.7	2:50	6	103.6	85.09	780	6	1	SM	BA DO LV
UC 206	65-7	42.2	66	32	2	145	15.5	1	71.9	0.33	11.7	1	62.8	3	63.3	3	63.3	2:50	5	103.7	87.07	760	7	1	SM	BA DO
UC 192M	62-7	40.2	42	52	6	147	15.0	8	71.3	0.33	10.7	1	62.8	3	63.5	3	63.5	2:50	6	102.5	86.09	730	8	1	LG	EA
UC 203	65-5	36.7	88	30	2	143	15.4	8	72.1	0.35	11.5	1	64.2	4	64.9	4	64.9	2:25	6	103.8	87.09	785	5	1	SM	DC LV
UC 204	65-5	36.7	88	30	2	143	15.4	8	72.1	0.35	11.5	1	64.2	4	64.9	4	64.9	2:25	6	103.8	87.09	785	5	1	SM	DC LV
UC 205	62-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 206	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 207	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 208	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 209	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 210	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 211	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 212	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 213	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 214	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 215	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 216	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 217	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 218	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 219	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 220	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 221	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 222	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 223	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 224	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 225	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 226	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 227	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 228	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 229	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 230	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 231	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 232	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 233	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 234	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 235	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 236	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 237	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 238	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 239	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 240	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 241	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 242	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 243	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 244	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 245	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 246	63-6	43.1	74	23	3	150	15.5	8	71.1	0.36	10.1	1	62.3	2	63.4	2	63.4	1:75	5	101.0	86.07	780	9	1	SM	BA
UC 247	63-6	43.1	7																							

TABLE 22

QUALITY DATA ON FIELD PLOT NURSERY SAMPLES

1978 CKCP

VARIETY OR SEL. NO.	T. NO.	100% KAT	REFILL SIZE LUG	WPT. MIN.	WPT. MAX.	KERN. CHAS.	PLN. EXT.	MIN. UGS.	FLD. PR.	MLQ. CHAS.	MLQ. PR.	MIX. AUS.	MIX. PAT.	EAK. AUS.	MIX. TIME	DOUGH CHAS.	CRUMB CLOR	CRUMB CHAS.	LOAF VOL.	BAKE VAL.	GEN. VAL.	MAJOR DEFICIENCY
DICK (INSUR.) NORTH DAKOTA																						
ANGUS	62-9	36.1	65	1.43	1.5	4	54.2	0.37	13.5	1	1	04.7	4	63.4	3.00	3	101.5	89.05	920	2	4	SM
BURTE	62-3	35.0	49	1.33	1.1	4	61.0	0.37	13.4	1	1	04.3	3	63.4	2.25	3	101.0	88.05	860	3	4	SM
COTEAU	61-1	35.7	49	1.62	1.6	3	70.2	0.37	13.0	1	1	04.3	3	63.4	2.25	3	101.5	88.07	920	2	4	SM
ERA	61-1	34.5	43	1.48	1.4	2	70.2	0.37	13.0	1	1	04.3	3	63.4	2.25	3	101.5	88.07	860	5	3	SM
EUKEKA	31-3	41.0	71	1.54	1.4	3	71.2	0.36	14.3	1	1	05.7	5	69.3	3.50	3	131.8	88.05	145	2	4	SM
KIT	59-1	37.3	53	1.53	1.3	3	71.3	0.31	14.3	1	1	05.7	5	69.3	3.50	3	131.8	88.05	860	2	4	SM
NEVADA	62-1	37.7	55	1.47	1.6	4	65.6	0.37	12.5	2	2	05.1	3	65.6	2.75	3	104.9	87.05	915	2	4	SM
DLAF	51-4	38.5	75	1.55	1.5	2	65.4	0.37	13.7	2	2	04.7	3	63.4	3.50	3	103.0	88.05	920	2	4	SM
PRODIGY	59-1	49.3	50	1.50	1.6	5	65.2	0.37	13.5	1	1	04.2	5	64.7	3.25	3	102.0	88.05	860	2	1	SM
PROFIT 75	61-2	37.6	19	1.45	1.6	5	73.3	0.37	13.5	1	1	04.2	5	64.7	3.25	3	102.0	88.05	860	2	1	SM
SOLAR	62-5	35.4	54	1.42	1.4	5	72.3	0.37	12.8	1	1	04.2	5	64.7	3.25	3	102.0	88.05	860	2	1	SM
WALDRUN	60-1	40.7	71	1.63	1.4	2	70.4	0.41	14.0	1	1	04.2	5	64.7	3.25	3	103.4	88.05	860	2	1	SM
ND 543	60-2	40.5	73	1.43	1.4	3	73.1	0.37	13.5	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 550	60-3	39.7	74	1.53	1.6	3	70.2	0.37	13.5	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 558	59-1	37.4	67	1.48	1.4	2	69.7	0.37	14.7	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 559	59-1	42.3	70	1.50	1.5	3	71.7	0.35	14.2	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 562	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 563	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 565	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 567	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 568	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 569	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 570	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 571	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 572	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 573	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 574	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 575	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 576	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 577	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 578	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 579	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 580	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 581	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 582	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 583	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 584	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 585	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 586	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 587	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 588	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 589	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 590	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 591	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 592	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 593	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 594	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 595	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 596	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 597	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 598	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 599	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 600	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 601	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 602	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 603	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 604	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 605	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 606	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 607	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 608	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 609	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 610	61-5	37.2	65	1.36	1.5	3	65.5	0.36	14.6	1	1	04.2	5	64.7	3.25	3	102.7	88.05	925	2	2	SM
ND 611	61-5	37.2	65	1.36	1.5	3	65															

1978 CRIP

VARIETY OR SEL. NO.	T-10 750	1000 KAT.	NEEDLE SIZE LG 1000	WHT. PRG.	KEN. CHAS.	FR. FAT.	WIND. CHAS.	PR. CHAS.	FLC. CHAS.	MCG. CHAS.	MIA. CHAS.	RAKE ADJ.	MIX. TIME	DOUGH CHAR.	CRUMB COLOR	CRUMB GRAIN	LCAP. BAKE VOL. EVAL.	GER. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY
WILLISTON, NORTH DAKOTA																				
63-7 3340	49	2	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-8 3345	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-9 3350	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-10 3355	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-11 3360	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-12 3365	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-13 3370	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-14 3375	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-15 3380	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-16 3385	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-17 3390	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-18 3395	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-19 3400	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-20 3405	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-21 3410	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-22 3415	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-23 3420	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-24 3425	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-25 3430	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-26 3435	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-27 3440	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-28 3445	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-29 3450	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-30 3455	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-31 3460	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-32 3465	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-33 3470	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-34 3475	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-35 3480	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-36 3485	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-37 3490	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-38 3495	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-39 3500	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-40 3505	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-41 3510	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-42 3515	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-43 3520	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-44 3525	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-45 3530	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-46 3535	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-47 3540	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-48 3545	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-49 3550	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-50 3555	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-51 3560	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-52 3565	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-53 3570	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-54 3575	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-55 3580	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-56 3585	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-57 3590	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-58 3595	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-59 3600	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-60 3605	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-61 3610	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-62 3615	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-63 3620	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-64 3625	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-65 3630	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-66 3635	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-67 3640	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-68 3645	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-69 3650	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-0-0	39-10	70-5	3	BA DU	
63-70 3655	49	3	17-2	1-3	2	0-0-0	0-0-0	1-3	2	0-0-0	0-0-0	60-0-0	4-0-0	2-0-0	10-					

[illegible]

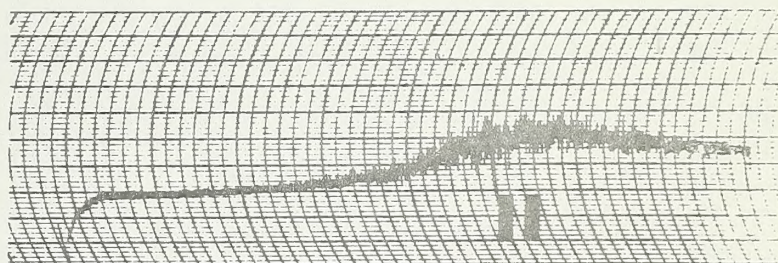
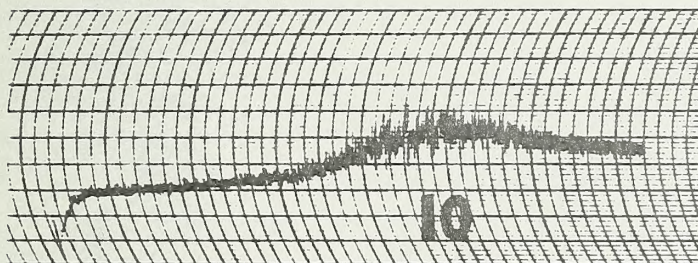
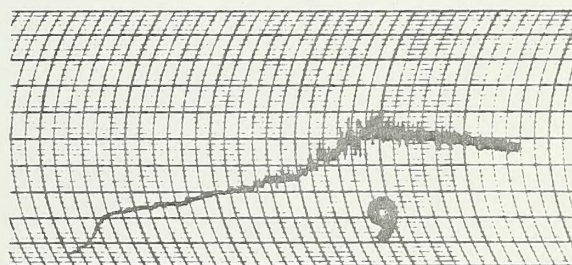
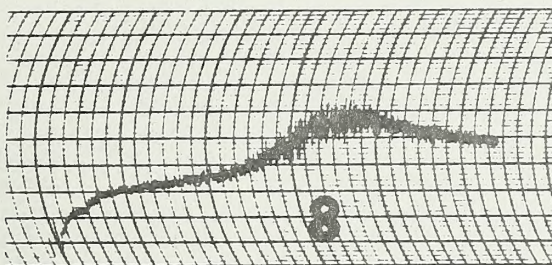
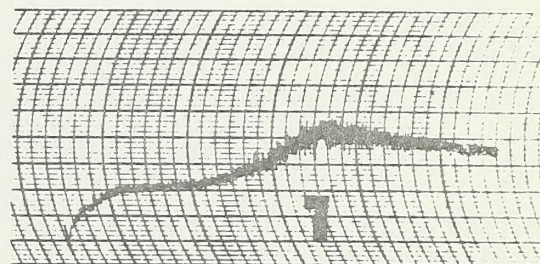
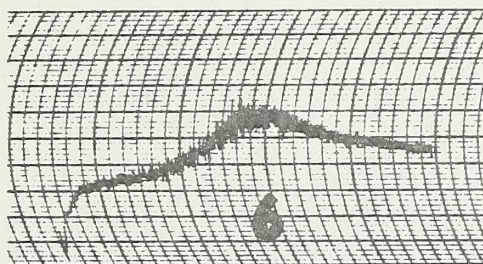
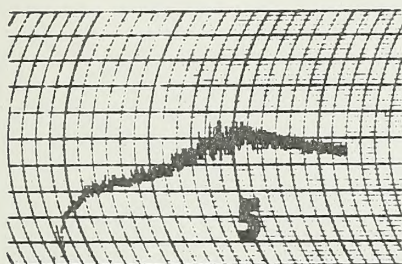
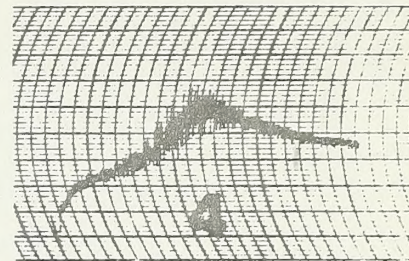
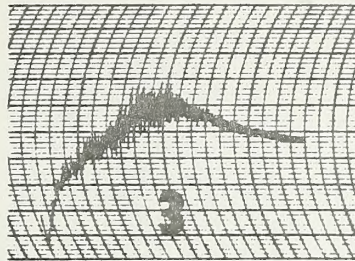
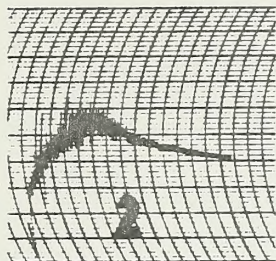
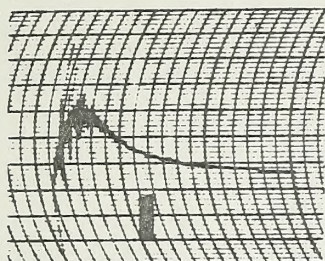
TABLE 25

[illegible]

VARIETY OR SEL. NO.	T.W. #BU.	1000 KRL.	KERNEL SIZE L B W	WHT. MIN. MAX.	KERN. CHAM.	FLR. EXT.	FLR. MIN. MAX.	MLG. CHAM.	MLG. EXT.	BAKE TIME	MIN. TIME	DOUGH CHAM.	CRUMB CHAM.	CRUMB VOL.	LOAF BAKE VOL.	GEN. EVAL.	MINOR DEFICIENCY	MAJOR DEFICIENCY
MINOT, NORTH DAKOTA																		
63-2	36.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	KW	M65
63-4	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-6	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-8	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-10	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-12	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-14	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-16	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-18	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-20	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-22	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-24	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-26	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-28	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-30	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-32	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-34	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-36	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-38	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-40	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-42	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-44	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-46	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-48	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-50	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-52	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-54	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-56	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-58	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-60	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-62	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-64	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-66	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-68	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-70	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-72	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-74	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-76	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-78	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-80	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-82	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-84	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-86	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-88	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-90	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-92	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-94	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-96	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-98	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-100	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-102	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-104	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-106	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-108	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-110	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-112	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-114	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-116	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-118	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-120	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-122	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-124	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-126	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-128	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-130	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-132	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-134	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-136	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-138	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-140	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-142	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-144	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-146	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-148	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-150	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-152	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-154	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-156	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9	5	12.9	19.6	2.2	1	MT	DO
63-158	40.1	49	55	2	1.67	1.5-2	62.6	1.9	1.9	62.9	2.9							

REFERENCE MIXOGRAMS

HARD RED SPRING WHEAT



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